REMARKS

By the present amendment, claims 1 and 5 have been amended. Claims 1 - 14 and 18 - 19 are now pending. Claims 15 – 17 have been previously withdrawn.

Amendments to the Claims

Support for amendments to claims 1 and 5 can be found for example, throughout the specification, for example: page 8, lines 6-8, page 13, lines 7-12, and Table 2.

All amendments and cancellations are made without prejudice or disclaimer. Applicant explicitly retains the right to pursue any deleted subject matter in one or more continuation applications. No new matter has been added by any of the amendments.

A. REJECTION UNDER 35 U.S.C. § 102(b)

Claims 1 – 14 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hsu et al. (Immun., Vol. 169, pp. 5118-5129, 2002)

Claims 1-14 have been rejected under 35 USC 102(b) as allegedly being anticipated by Hsu et al. (Immun., Vol. 169, pp. 5118-5129, 2002), herein "Hsu"). The Examiner has argued that Hsu teaches "a primer set of claims 1-7, 11, for identifying KIR allele comprising one or more primer pairs to produce an amplicon that is less than or 1000 bases in length from a nucleic acid that encodes intra-exon portion or an extracellular portion of KIR (see page 5119, col. 2, paragraph under subtitle polymerase chain reaction, paragraph under subtitle 2DS4 variant identification and cloning, page 5120 table 1, col.1, line 1-12, page 5122, Fig. 3, indicating KIR1D amplicon less than about 1000 bases in length)" The Examiner cites page 5120 table 1, col.1, line 1-12, page 5122, Fig. 3 indicating KIR1D of Hsu for the alleged teaching of amplicon length ranges less than or 1000 bases in length in rejecting claims 8-10, 13-14 and page 5127, Fig. 7 indicating exons for the alleged teaching of the intra-exon or extracellular portion of the KIR receptor is encoded by any one of the KIR exons 1-8 (Office Action of October 13, 2010, pages 2-3). Applicants respectfully traverse the rejection because Hsu does not teach an amplicon of the KIR1D allele from an intra-exon portion that is less than or 1000 bases in length.

> It is settled law that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in complete detail as contained in the…claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

As amended, independent claims 1 recites, "…. genomic nucleic acid that encodes for an extracellular portion of a KIR, wherein the set produces an amplicon for at least KIR1D, said KIR1D amplicon comprising less than or 1000 bases in length." And as amended, independent claim 5 recites, "…an amplicon that is less than or 1000 bases in length from a genomic nucleic acid that encodes a KIR, wherein the set produces an amplicon for at least KIR1D, said KIR1D amplicon comprising less than or 1000 bases in length." Hsu does not teach a *genomic* nucleic acid having an amplicon of the KIR1D allele from an *intra-exon* portion that is less than or 1000 bases in length. In Figure 3 of Hsu the KIR1D amplicon from genomic DNA is shown to be about 2000 bp and from cDNA the KIR1D amplicon is shown to be about 300 bp (Figure 3, page 2122). Further, as noted by Hsu, in Table 1, the genomic amplicon length for KIR1D is 1885 bp. Thus, Hsu et al. does not anticipate independent claims 1 and 5 as amended and the claims that depend either directly or indirectly thereform. Withdrawal of the rejection of Claim 1 – 14 as being anticipated by Hsu et al. (Immun., Vol. 169, pp. 5118-5129, 2002) is respectfully requested.

B. REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 18-19 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hsu et al. (Hsu et al. (Immun., Vol. 169, pp. 5118-5129, 2002) in view of Stratagene Catalog (Stratagene Catalog, p. 39, 1988)

Claims 18-19 have been rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hsu in view of Stratagene Catalog (herein "Stratagene). Applicants respectfully disagree and traverse this rejection for the following reasons.

The Cited Combination Does Not Teach All the Limitations of Applicant's Independent Claim 5

Claim 18 is directed to a "kit for detecting one or more KIR alleles comprising the primer set of claim 5" and Claim 19 is directed to a "kit for detecting one or more KIR alleles comprising the primer set of claim 7." Independent Claim 5 has been amended to recite, "…an amplicon that is less than or 1000 bases in length from a genomic nucleic acid that encodes a KIR, wherein the set produces an amplicon for at least KIR1D, said KIR1D amplicon comprising less than or 1000 bases in length." Claim 7 depends from claim 6 which depends directly from claim 5 and thus claim 7 includes all the limitations of both claims 5 and 6. Therefore the kits of claims 18 and 19 also include the limitations of claim 5 (claim 18) and claims 5-7 (claim 19).

Applicant submits that neither Hsu nor Stratagene, taken alone or in combination, teach Applicant's kits for detecting one or more KIR alleles comprising the primer set of claim 5 or claim 7.

As discussed *supra* Hsu neither teaches nor suggests a primer set for detecting an amplicon for at least KIR1D as recited in Applicant's independent claim 5, as amended, nor does Hsu teach a kit comprising KIR primers. Stratagene does not cure the deficiencies of Hsu and was cited simply for the teaching of a kit for gene characterization.

Therefore, Applicant submits that Hsu and Stratagene in combination do not disclose all the limitations of claim 5 or dependent claims 18 and 19. Moreover, as claims 18-19 each depend directly or indirectly from claim 5, it follows that pending claims 18 and 19 are not obvious under 35 U.S.C. § 103(a) over the combination of Hsu and Stratagene. Accordingly, for this reason alone, Applicant requests withdrawal of the rejection of claims 18 and 19 under 35 U.S.C. § 103(a) as being obvious over Hsu in view of Stratagene.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. A notice of allowance is therefore respectfully requested. If any issues remain that can be resolved by phone, Applicants request that the Examiner contact the undersigned at (650) 554-3460.

FEE AUTHORIZATION

Applicant hereby authorizes the United States Patent and Trademark Office to charge any fees due at this time to Deposit Account No. **50-3994 (Order No. IVGN 607 US)**. Any deficiency or overpayment should be charged or credited to this deposit account. This is not an authorization to pay the issue fee.

Respectfully submitted,

Date: March 14, 2011

/Shirley A. Recipon/
Shirley A. Recipon, Reg. No. 47,016
Agent for Applicants

CORRESPONDENCE ADDRESS
Customer Number 52059
LIFE TECHNOLOGIES CORPORATION
TEL: 650-554-3460
FAX: 650-638-6677